

ABSTRACT

To provide a manufacturing apparatus that is capable of manufacturing metal-ceramic composite members in various shapes with high productivity, and a mold member and a manufacturing method therefor. An apparatus for manufacturing a metal-ceramic composite member was made, the apparatus including: a plurality of process regions, namely, an atmosphere replacing/heating part 11, a molten metal push-out part 21, and a cooling part 31; and a guide 48 for allowing a mold to pass through these plural process regions, molds 60 having ceramic members 86 placed therein are successively inserted into a mold inlet 43 provided in this guide 48 to pass through the guide 48 practically in a shielded state from the atmosphere, a molten metal 53 is poured thereto in the molten-metal push-out part 21, and the molten metal 53 is cooled and solidified in the cooling part 31 to join a metal and a ceramic, thereby manufacturing the metal-ceramic composite member.